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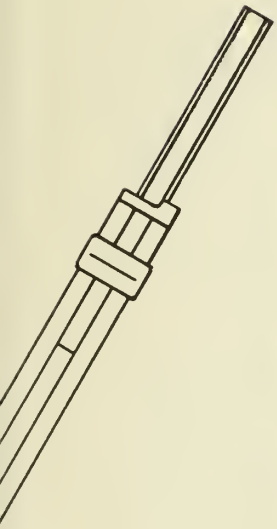
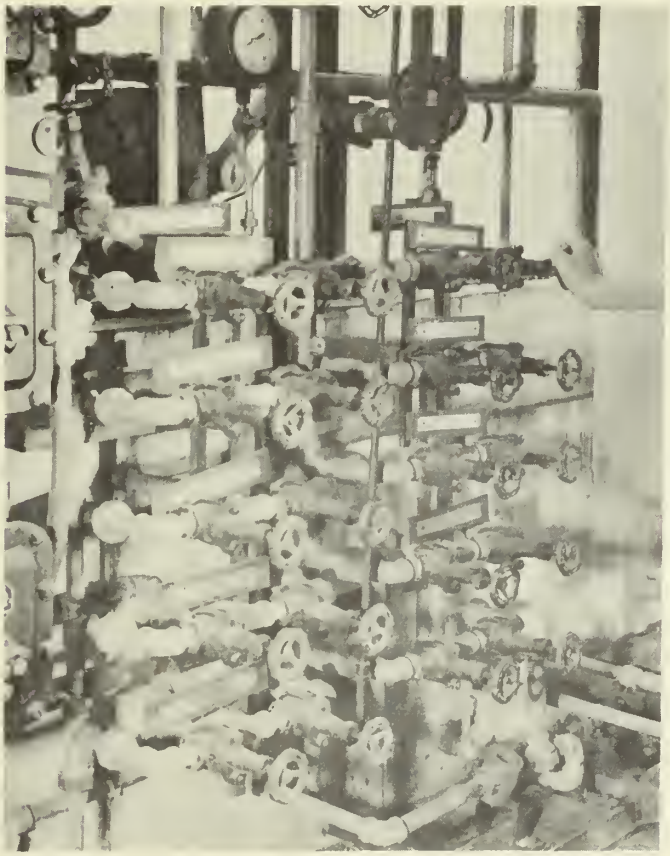
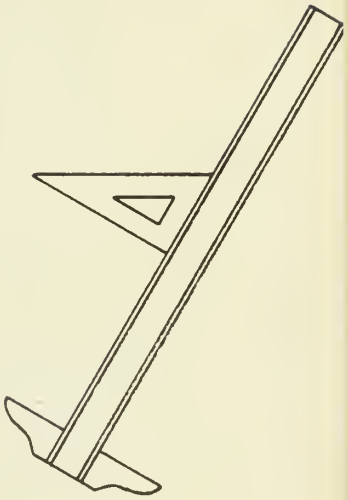
Southern Regional Research Laboratory
New Orleans 19, Louisiana

VISCOSITIES OF COTTONSEED AND PEANUT OIL-HEXANE MISCELLAS IN ENGLISH UNITS

By Kenneth M. Decossas, Frederick A. Deckbar, Jr.,
and Joseph L. Hecker
Engineering and Development Division







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Constant composition curves of viscosity vs. temperature for refined and winterized cottonseed oil-commercial hexane miscellas and for like miscellas with peanut oil are presented in English units (1) from data previously published (2) in metric units.

Tables of viscosities of these vegetable oil miscellas at various temperatures and compositions (2) were converted to English units and plotted as intermediate viscosity-composition isotherms. Readings of viscosity versus temperature taken off these intermediate curves were plotted and the curves are shown in Figures 1 through 4.

Replotted in Figures 1 through 4 are absolute viscosity, μ, as ordinate expressed in pounds per foot-hour, and temperature, t, as abscissa expressed in degrees Fahrenheit.

These graphs are complementary to others (3,4) in English units on boiling points, densities, and gravities of cottonseed and peanut oil miscellas. The cottonseed oil used to obtain the original data (1) was refined, bleached, and winterized, and had a Wijs iodine number of 110.6 and a free fatty acid content of 0.11%. It was winterized in admixture with a commercial hexane at -17° C. using a solvent-oil ratio of 1 to 1 by weight.

The peanut oil was refined and was then winterized in admixture with the commercial hexane at -20° C. using a solvent-oil ratio of 3 to 1 by weight. It had a Wijs iodine value of 92.6 and a free fatty acid content of 0.41%. The commercial hexane was used as received without further treatment.

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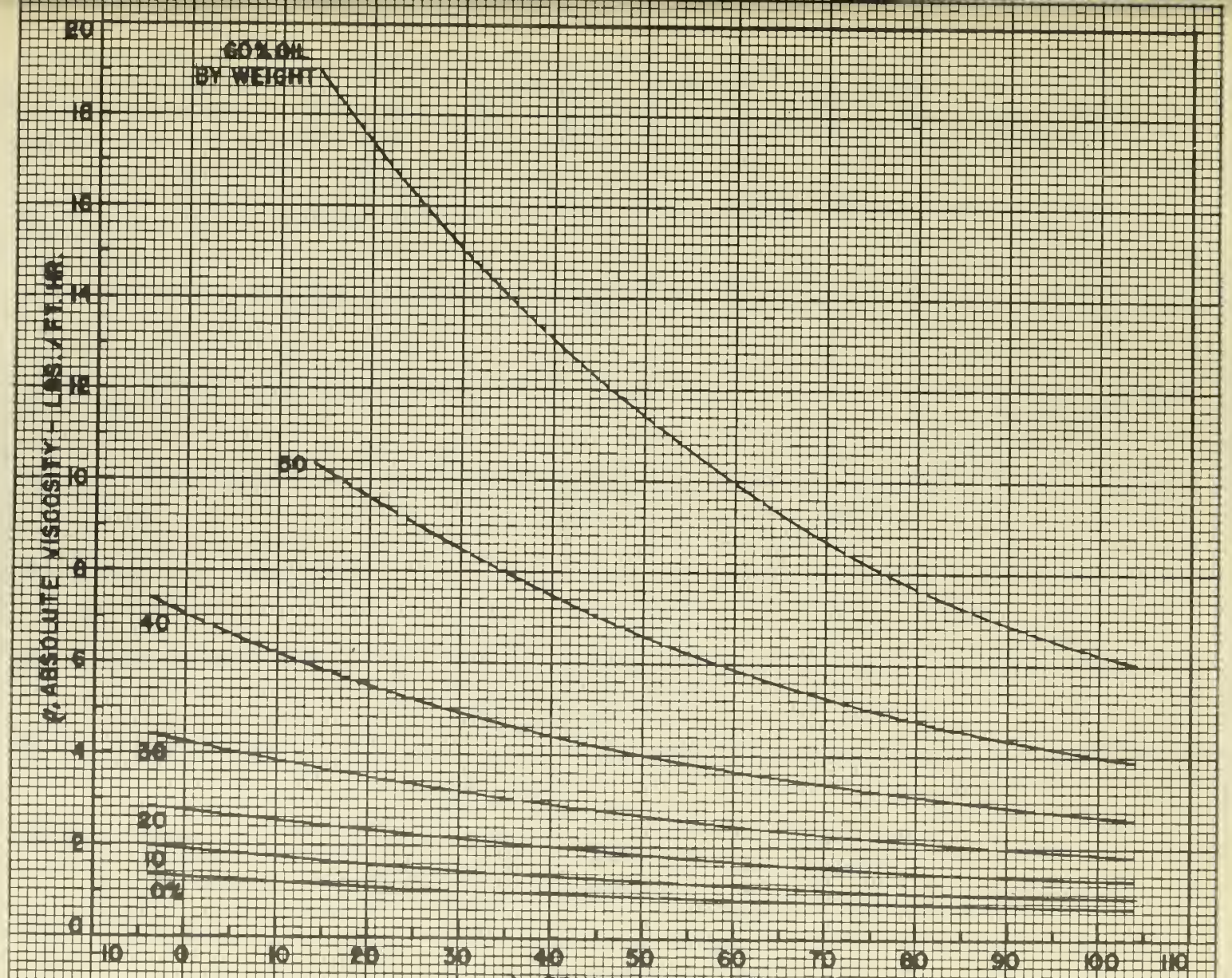

FIGURE 1 (LOW RANGE)

ABSOLUTE VISCOSITIES

COTTONSEED OIL - COMMERCIAL HEXANE MISCELLAS

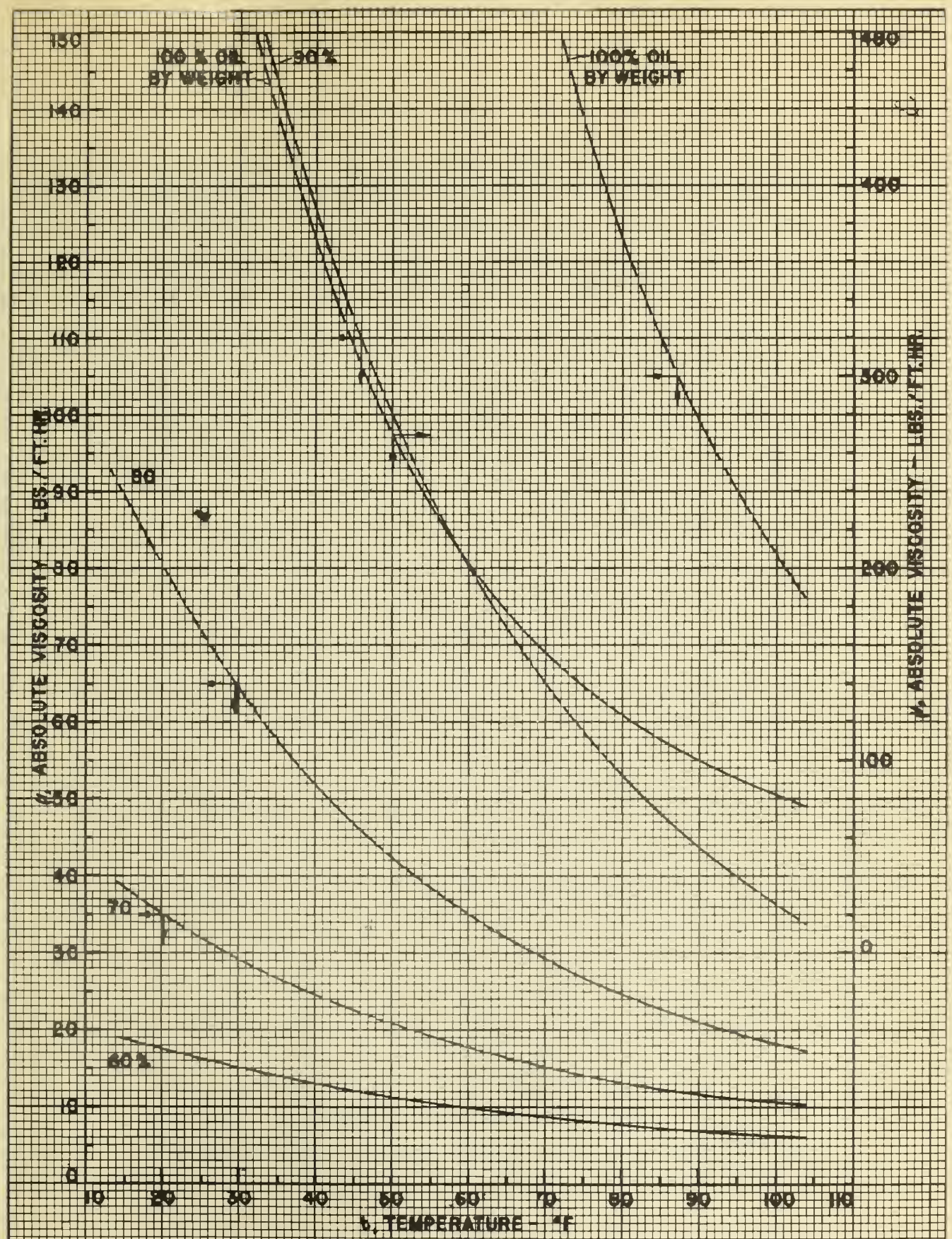

FIGURE 2 (HIGH RANGE)

ABSOLUTE VISCOSITIES

COTTONSEED OIL - COMMERCIAL HEXANE MISCELLAS

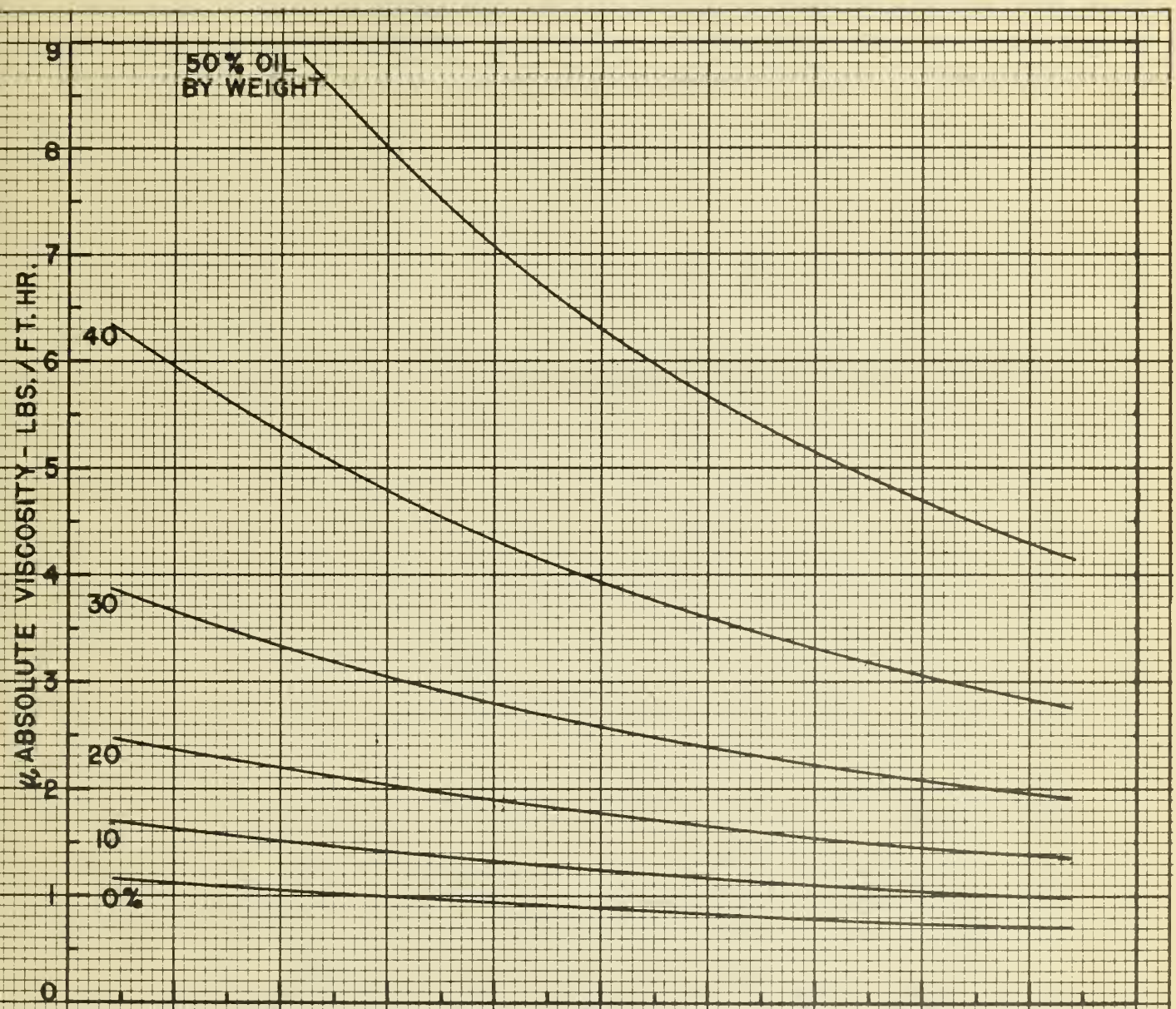

FIGURE 3 (LOW RANGE)

ABSOLUTE VISCOSITIES

PEANUT OIL- COMMERCIAL HEXANE MISCELLAS

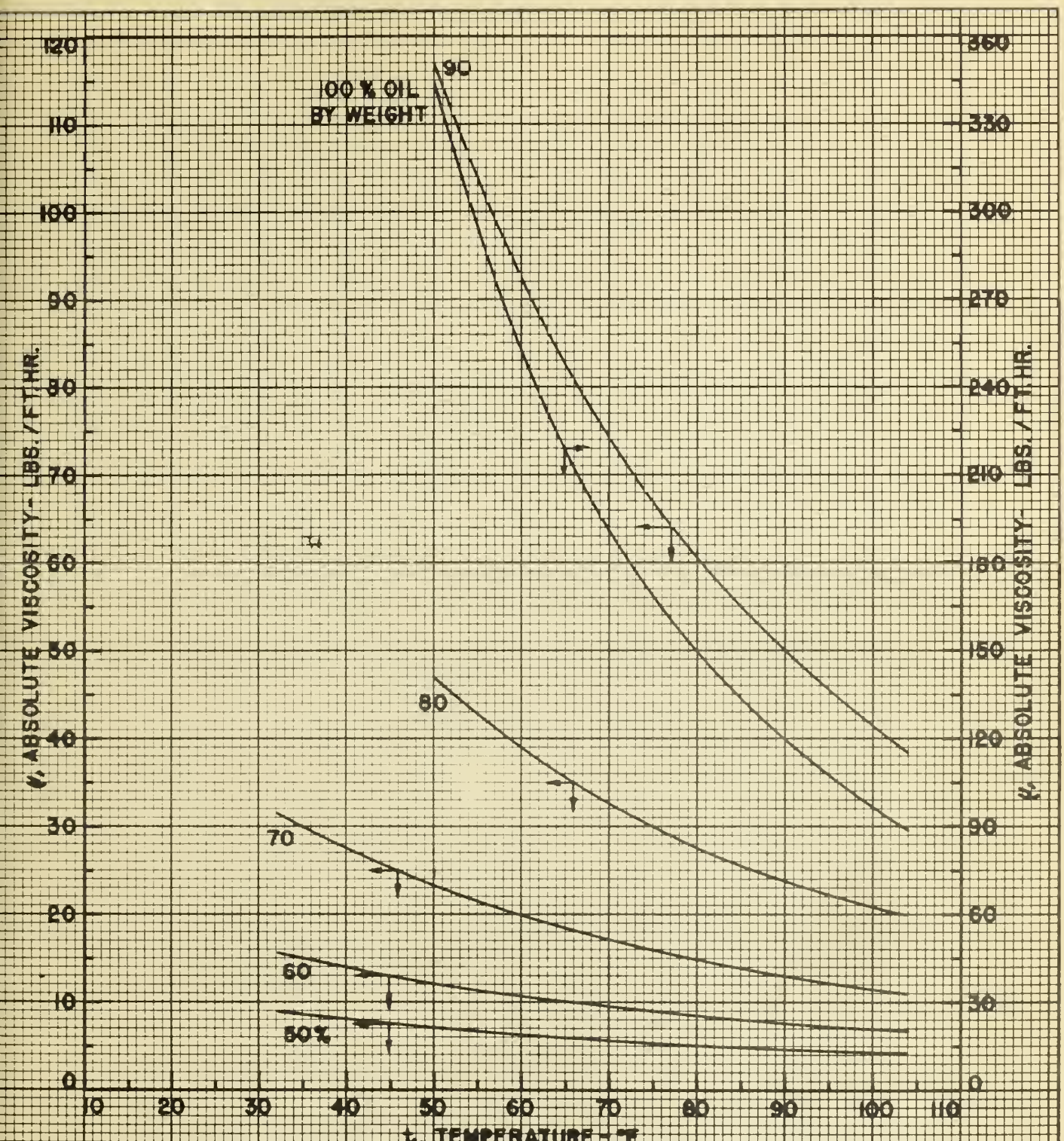

FIGURE 4 (HIGH RANGE)

ABSOLUTE VISCOSITIES

PEANUT OIL - COMMERCIAL HEXANE MISCELLAS